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L3: Entry 1 of 1

File: USPT

Dec 24, 2002

US-PAT-NO: 6498982

DOCUMENT-IDENTIFIER: US 6498982 B2

TITLE: Methods and apparatus for displaying a travel route and/or generating a list of places of interest located near the travel route

DATE-ISSUED: December 24, 2002

INVENTOR-INFORMATION:

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Mapquest. Com, Inc.	New York	NY			02

APPL-NO: 09/901082 [\[PALM\]](#)

DATE FILED: July 10, 2001

PARENT-CASE:

CROSS-REFERENCE TO RELATED APPLICATIONS This application is a continuation of U.S. Ser. No. 08/069,161, filed May 28, 1993, which is allowed. This application is now an issued patent, U.S. Pat. No. 6,282,489, dated Aug. 28, 2001.

INT-CL-ISSUED: [07] G01 C 21/26

US-CL-ISSUED: 701/202; 701/208, 701/209, 701/201

US-CL-CURRENT: 701/202; 701/201, 701/208, 701/209

FIELD-OF-CLASSIFICATION-SEARCH: 701/200, 701/201, 701/208, 701/209, 701/210, 701/211, 701/202, 340/988, 340/990, 340/995, 340/947, 340/954, 73/178R
See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/> <u>4301506</u>	November 1981	Turco	701/117

<input type="checkbox"/>	<u>4528552</u>	July 1985	Moriyama et al.	340/525
<input type="checkbox"/>	<u>4546439</u>	October 1985	Esparza	701/202
<input type="checkbox"/>	<u>4570227</u>	February 1986	Tachi et al.	701/202
<input type="checkbox"/>	<u>4646089</u>	February 1987	Takanabe et al.	340/995
<input type="checkbox"/>	<u>4734863</u>	March 1988	Honey et al.	701/207
<input type="checkbox"/>	<u>4764873</u>	August 1988	Libby	701/301
<input type="checkbox"/>	<u>4796189</u>	January 1989	Nakayama et al.	701/209
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<input type="checkbox"/>	<u>4914605</u>	April 1990	Loughmiller, Jr.	345/649
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<input type="checkbox"/>	<u>4954958</u>	September 1990	Savage et al.	701/202
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<input type="checkbox"/>	<u>5031104</u>	July 1991	Ikeda et al.	701/209
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<input type="checkbox"/>	<u>5067081</u>	November 1991	Person	701/205
<input type="checkbox"/>	<u>5115399</u>	May 1992	Nimura et al.	701/208
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<input type="checkbox"/>	<u>5189430</u>	February 1993	Yano et al.	342/457
<input type="checkbox"/>	<u>5191406</u>	March 1993	Brandestini et al.	348/111
<input type="checkbox"/>	<u>5191532</u>	March 1993	Moroto et al.	701/201
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<input type="checkbox"/>	<u>6282489</u>	August 2001	Bellesfield et al.	701/201

OTHER PUBLICATIONS

B. Singh et al.; "Introduction to Data Structures"; pp. 215-223; 1985; West Publishing of Minnesota.
 U.S. Geological Survey Professional Paper; "Map Projections--A Working Manual"; 1987; U.S. Department of Interior.

ART-UNIT: 3661

PRIMARY-EXAMINER: Louis-Jacques; Jacques H.

ATTY-AGENT-FIRM: Fish & Richardson P.C.

ABSTRACT:

An automated travel planning apparatus includes three separate databases, including a map database for storing bit-mapped images covering numerous geographic regions, a routing database for storing node, link, and shape data for roads geographically located within the geographic regions and for storing place data indicating the geographic location of places such as towns and cities, and a places of interest database containing the geographic locations of numerous places of interest. A processor within the automated travel planning apparatus may be divided into several functional components, including a map selection component, a routing component, and a place selection component. In response to user input at the user interface, the map selection component chooses a bit-mapped image from the map database for display on the display monitor. After a user selects, via the user interface, a departure point and a destination point, the routing component employs the routing database to generate and display a route between the selected departure and destination points. If the user requests a list of places near the displayed route, the place selection component employs the places of interest database to generate and display a list of places of interest which are within a predetermined distance of the generated route.

14 Claims, 11 Drawing figures

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L9: Entry 1 of 1

File: USPT

Sep 7, 1999

DOCUMENT-IDENTIFIER: US 5948040 A

TITLE: Travel reservation information and planning system

Detailed Description Text (93):

Integration between a plurality of sequential sub-sessions is feasible. For an illustration, manual or automated entry of the birthday party location in Places 417, in a preceding step, can facilitate John Jones' later explorations in Accts. 411--for example, shopping for lodging or transportation reservations. The prior geographic input can also help searching in Times 419 for EOIs or scheduled events of interest limited to the local geographic area (e.g. a nearby sports or cultural event John Jones' might want to attend either before or after his grandmother's birthday party). The alternative stock hypothetical case in this disclosure provides added examples of integration involving multiple sequential sub-sessions in TRIPS. After selecting "scuba-diving" related to "coral reefs" in Topics 415, Sara Smith can prompt and preview a display of TRIPS maps of the locations of particular "coral reefs." The presentation of maps can further include listings and location information about a specific collection of scheduled events related to "scuba diving" (e.g. "located" or geocoded dates/times for particular diving classes, dive boat sailings, days/hours which particular dive-shops in specified places are open, seasonal or reservation availability information for particular scuba-diving related services), which are also pinpointed at specific geographic locations on the TRIPS display. A map display or series of map screens--integrated with dates/times and available reservation/ticket information related to the linked topics of "scuba-diving" and "coral reefs"--is thus presented to Sara Smith for preview by means of sequential, relational operations performed in the Topics 415, Places 417, Times 419 and Accts. 411 Subsystems, consistent with the flow chart in FIG. 4. Added details on such preferred TRIPS sequenced relational database operations, engaging a plurality of the TRIPS travel information Subsystems, are provided elsewhere in the present TRIPS disclosure--particularly referring to FIGS. 5-8.

Detailed Description Text (97):

TRIPS travel information gathered by independent user-directed operations gets incorporated into the travel plan output emerging from the ongoing, individual TRIPS travel planning session in two general ways. For one thing, the user can "attach" or manually command that selected numerical, text, graphic and/or audio travel information items be included in his or her emerging travel plan output--as disclosed in David M. DeLorme and Keith A. Gray, U.S. Pat. No. 5,559,707 "COMPUTER-AIDED ROUTING SYSTEM" [or CARS], as assigned to DeLorme Publishing Co., Inc. also owner of the present TRIPS patent disclosure. Second, TRIPS travel information gathered during independent user-directed operations is incorporated into emerging travel plan output by being used as an ingredient or by becoming the basis of a subsequent integrated operational sequence. John Jones might independently look up the exact street address of a personal friend in upstate New York or West Virginia, for example--with the "People" directory in the "INDEX & LISTS" sub-menu under the "WHAT/WHO?" main input menu at 157 in FIG. 1C, which is the gateway for user inquiries addressing TOPICS 415 in FIG. 4. This independently user-derived topical

travel information--i.e. the street address and name of John Jones' personal friend--can thereafter be "mapped", geocoded or geographically located by means of a subsequent, integrative step performed in the Geographic Subsystem or Places 417 in FIG. 4. The old friend's name and address is thereby located and pointed out on the TRIPS map display, for example, by a symbol and captioning Map Note--as disclosed in Keith A. Gray, U.S. patent application Ser. No. 08/521,828 titled "COMPUTERIZED ADDRESS LOCATION AND COMMUNICATIONS SYSTEM" [or CALCS] filed Aug. 31, 1995 and owned by DeLorme Publishing Co. Inc., also assignee of the present TRIPS Application.

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